

Please complete online application at:

<https://labtomarket.columbia.edu/cdi>

All information included in the application should be non-confidential

1. Program Summary

The Carbontech Development Initiative (CDI) is a large-scale market transformation grant-seeding and commercialization initiative for carbontech science and technology. CDI aims to position New York State as a global carbontech hub by supporting research and development, facilitating technology transfer, and commercializing innovation. CDI funds carbontech research projects and startups that aspire to create high-impact scientific breakthroughs and accelerate technology from benchtop to commercialization. In this round of funding CDI has three grant programs, two Research Programs and one Commercialization program.

- **Research Programs:**
 - **Propel Carbontech** provides grant funds to research teams external to Columbia University for 12 – 18-month research projects on carbontech within CDI’s technology scope.
 - **Carbontech Leap** provides grant funds to research teams at Columbia University’s Lenfest Center for Sustainable Energy for up to 24-month research projects on carbontech within CDI’s technology scope
- **Commercialization Program:**
 - **Bridge Carbontech** provides grant funds to research teams external to Columbia University for 12 – 24-month projects focused on commercializing carbontech within CDI’s technology scope

This Request for Proposals is for the Propel Carbontech program. Detailed eligibility criteria and requirements are listed in subsequent sections below. RFPs for CDI’s other programs are available on CDI’s website: <https://labtomarket.columbia.edu/cdi>

2. Technology Areas of Interest

Technologies CDI funds are organized in three (3) Topic Areas (TAs) representing the carbontech areas of highest relevance to stimulating a nation-leading carbontech innovation and commercialization ecosystem in New York State:

TA1: CO2 Capture Technology

TA2: CO2-to-Building Materials

TA3: CO2-to-Chemicals/Fuels and Dual-Functional Materials

See **Appendix A** for a detailed description of eligible technologies.

3. Technology Readiness Level (TRL)

The Technology Readiness Level (TRL) scale is a measurement system used to assess the maturity level of a particular technology. Specific CDI program eligibility is based in part on the project TRL and teams should apply to a program that aligns with the TRL of the project at the time of application based on the figure in

Appendix B. Teams will self-identify a TRL in their application to CDI and will provide a justification for the TRL selected, according to TRL descriptions.

CDI has three programs funding projects at specific TRL levels, two **Research Programs** and one **Commercialization Program**:

- Research Programs:
 - **Propel Carbontech (Columbia University teams not eligible)** – TRL 2-3
 - Carbontech Leap (Columbia University only) – TRL 2-3
- Commercialization Programs
 - Bridge Carbontech (Columbia University teams not eligible) – TRL 4-9

4. Eligibility

Applicants should apply to the appropriate CDI program and conform to the eligibility criteria for the program to which they apply. This application is for the Propel Carbontech program. Successful applicants must meet all eligibility requirements listed below.

PROPEL CARBONTECH focuses on accelerating technology from benchtop to commercialization through a competitive research program. Funding is available for eligible entities external to Columbia University. The program encourages research projects from institutions across all states in the United States and globally with the objective of bringing new ideas and research into New York State. **Error! Reference source not found.** below defines eligibility criteria.

Table 1: Propel Carbontech Eligibility Criteria

Criteria	Eligibility Requirement
Technology Area	TA 1-3
TRL	TRL 2-3
Team Composition	At least one Principal Investigator (PI) identified
Funding	• No institutional funding raised, or • Seed funding through Series A
Product Stage	• Ideation, or • MVP/prototype
Revenue	• Pre-revenue, or • Revenue generating
Pre-existing IP	• No IP, or • Existing invention disclosure, or • Patent applied for or issued
Location	• Located within New York State, or • Demonstrated benefit to New York State: (see Appendix B: Definitions for description)
University Affiliation	• Teams must be external to Columbia University. Employees, agents, contractors, consultants, joint ventures, board members, affiliates, or advisors to Columbia University are not eligible for funds. • Teams led by graduates of Columbia University that do NOT have formal association with or support from the University are eligible to apply.

5. Anticipated Cohort Start Date

July 1, 2024

6. Funding & Project Length

The table below outlines the expected funding and project duration for each awardee for this solicitation. Awards in this solicitation round will total up to \$500,000.

Table 2: Expected Funding and Project Length

Program	Expected Individual Award Amount	Project Duration	Expected Number of Awards
Propel Carbontech	\$50,000 to \$150,000	12-18 months and must be completed	4 to 8

		including submission of all deliverables by June 30, 2027	
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CDI's goal of seeding groundbreaking technology breakthroughs requires that funding be allocated to maximize its potential impact. As such, applicants should be aware that funding is intended to be non-duplicative: in cases where an applicant has already secured funding for the proposed project, selection preference may be provided to applicants in more acute need of operational resourcing. CDI requires the indirect costs to be capped at 10% for all proposals.

7. **Proposal Submission**

All submissions must be received by **{11:59 p.m. ET on March 12, 2025}** via the Submittable portal (<https://cdi.submittable.com/submit>). Late proposals or proposals not submitted on the Submittable portal will not be accepted.

No communication intended to influence this procurement is permitted except by contacting CDI's Designated Contacts at L2M@ctv.columbia.edu. Contacting anyone other than the Designated Contacts (either directly by the proposer or indirectly through a lobbyist or other person acting on the proposer's behalf) in an attempt to influence the procurement: (1) may result in a proposer being deemed non-responsible under New York State Finance Law, and (2) may result in the proposer not being awarded a contract.

State Finance Law sections 139-j and 139-k: NYSERDA is required to comply with State Finance Law sections 139-j and 139-k. These provisions contain procurement lobbying requirements which can be found at <https://online.ogs.ny.gov/legal/lobbyinglawfaq/default.aspx>. Proposers are required to answer questions during proposal submission, which will include making required certification under the State Finance Law and to disclose any Prior Findings of Non-Responsibility (this includes a disclosure statement regarding whether the proposer has been found non-responsible under section 139-j of the State Finance Law within the previous four years).

Proprietary Information - Careful consideration should be given before confidential information is submitted as part of your proposal. Review should include whether it is critical for evaluating a proposal, and whether general, non-confidential information, may be adequate for review purposes. The NYS Freedom of Information Law, Public Officers law, Article 6, provides for public access to information NYSERDA possesses. Public Officers Law, Section 87(2)(d) provides for exceptions to disclosure for records or portions thereof that "are trade secrets or are submitted to an agency by a commercial enterprise or derived from information obtained from a commercial enterprise and which if disclosed would cause substantial injury to the competitive position of the subject enterprise." Information submitted as part of this Solicitation that the proposer wishes to have treated as proprietary, and confidential trade secret information, should be identified and labeled "Confidential" or "Proprietary" on each page at the time of disclosure. This information should include a written request to except it from disclosure, including a written statement of the reasons why the information should be excepted. See Public Officers Law, Section 89(5) and the procedures set forth in 21 NYCRR Part 501 <https://www.nyserda.ny.gov/About/-/media/Files/About/Contact/NYSERDA-Regulations.ashx>. However, Columbia and NYSERDA cannot guarantee the confidentiality of any information submitted.

Applicants are strictly prohibited from disclosing any information to external parties until the conclusion of the grant selection and contracting process and CDI have made a public announcement of awards. Successful

applicants must be mindful that their status as an awardee is not final until the contracting process is complete. Once contracting is complete, successful applicants will need to coordinate with CDI to ensure no announcements are made until CDI has officially announced awards after contracting.

CDI reserves the right to engage in communication and clarification with proposers at any stage of the proposal review, contracting, or project implementation process. This includes the ability to follow up before, during, or after contracting to address any questions or concerns related to team applications. CDI's goal is to ensure a comprehensive understanding of the proposals and to foster transparency throughout the entire process.

In the event of any contestation or dispute related to intellectual property rights, authorship, or other relevant issues arising from the proposals submitted, CDI reserves the right to delay, suspend, or reconsider the award-making process. All participants submitting proposals are expected to adhere to ethical and legal standards regarding intellectual property, authorship, and other related matters. Any such disputes will be thoroughly reviewed and may impact the final award decisions.

8. Proposal Narrative and Supporting Documentation

Please note, this RFP describes the information required in the application, but this RFP is not the program application – all applications must be submitted through the Submittable portal referenced above.

The proposal application will include the following and will have an overall word limit of 5,000 words:

Project Topic Area: (Select technology topic area)

- 1) *Carbon Capture Technology*
- 2) *Carbon-to-Buildings Materials*
- 3) *Carbon-to-Chemicals/Fuels and Dual-Functional Materials*

Secondary Topic Area

- 1) *Carbon Capture Technology*
 - *Direct air capture (DAC)*
 - *CO₂ capture from waste-to-energy and cement plants.*
 - *Innovative sorbent regeneration technology*
 - *Other, please specify:*
- 2) *Carbon-to-Buildings Materials*
 - *Carbon mineralization*
 - *CO₂ curing of concretes*
 - *Mg-based construction materials*
 - *Other, please specify:*
- 3) *Carbon-to-Chemicals/Fuels/Materials*
 - *Electrochemical conversion of CO₂*
 - *Chemical conversion of CO₂*
 - *Dual-functional materials*
 - *Other, please specify:*

Technology Readiness Level:

Self-reported TRL at start of project:

TRL targeted at project completion:

Technology Stage:

1. *Has active research on the technology been undertaken? If so, please describe?*
2. *If yes to above, have the components of the technology been integrated in a laboratory setting?*

3. *If yes to above, has a prototype system been tested in a relevant environment?*
4. *If yes to above, has a prototype been tested in an operational setting?*

Organization Type:

What organization type best fits your team?

- *University-based research team*
- *Non-university research team*
- *Start-up*
- *Other, please specify:*

Organization Size:

How many people work within your organization?

- *1-2 people*
- *3-5 people*
- *6-10 people*
- *10+ people*

Project Objective (Maximum word count: 300):

(Provide a clear and concise summary of your core technology, process, product, or service? What is the objective(s) of your company or team as it/they relate to advancing the carbontech market? Describe how this project will benefit New York State in reaching its environmental goals, advancing the State's carbontech market, or improving the economic or emissions outlook for the State's existing sectors. Teams should also provide an explanation of how they arrived at their self-reported TRL designation in this section.)

Background (Maximum word count: 800):

(Provide background information leading to the application.)

- A) *Discuss the current state of the art, including relevant progress or breakthroughs and knowledge gaps, and, if applicable, describe relevant studies, whether conducted by proposal team.*
- B) *Describe relevant prior or ongoing activities undertaken by members of project team.*
- C) *Identify specific research or commercialization barriers to market readiness affecting the proposed technology or its technology class.*

Project goals (Maximum word count: 300):

(Describe each project goal. How does each goal align with your project's objectives?)

Proposed Project (Maximum word count: 800):

(Provide a detailed description of proposed project activities, how each activity addresses specific technical, business, or market barriers, and why resolution of these barriers will advance the carbontech market. Explain how the proposed research will result in substantial advancement / translational impact of a carbontech technology or overcome research or other barriers that the project goals address. Include the hypotheses to be tested (if any) and the integration of experiments with theoretical and computational research efforts. Discuss technical and business milestones corresponding with proposed project activities. Describe which, if any, activities result in advancing of project TRL.)

Market Impacts (Maximum word count: 800):

(Detail how the proposed project will impact the carbontech market, including market impacts specific to New York State.

- A. *Enumerate specific market impacts that will result from the project.*
- B. *Explain the linkage between project activities and progress toward specified market impacts.*
- C. *Provide a rationale for why the project team feels confident that proposed activities, independently or collectively, are likely to result in the specified market impacts. Include a description of the conditions, including assumptions and external dependencies, necessary for success, potential risks or threats to project success, and risk mitigation strategies.)*
- D. *Describe the market landscape for the proposed technology*

Environmental Impacts (Maximum word count: 800):

(Detail how the proposed project will impact GHG mitigation and other environmental goals. To the extent possible, describe how these impacts align with New York State climate and just transition goals.)

- A. Enumerate specific potential GHG or environmental impacts that will result from the project.
- B. Explain the linkage between project activities and progress toward specified GHG or environmental impacts. For example, describe how project outcomes influence GHG reduction pathways.
- C. Provide a rationale for why the project team feels confident that proposed activities, independently or collectively, are likely to result in the specified GHG or environmental impacts. Include a description of the conditions for success, potential risks or threats to project success, and risk mitigation strategies.)

Tech-to-Market Plan (Maximum word count: 800):

(Detail the prospective pathways for project outputs to enter the carbontech market.)

- A. Describe where the project's core innovation fits in a carbontech commercial value chain.
- B. Upon completion of the proposed scope of work, describe the technological or commercial challenges that will remain as barriers to commercial end use of the project's core innovation.
 - What technical activities, including prototyping or demonstration need to be completed?
 - What business or market readiness activities need to be completed, such as business model validation, intellectual property development strategies, human capital requirements, and market development needs.

Management Structure (Maximum word count: 300):

(Outline the project team's organizational and management structure. Describe the roles and responsibilities of each team member. Describe the team's capabilities and access to resources, the systems the team will put in place to carry out the proposed scope of work, and how characteristics of team member backgrounds and experiences contribute to robust team competency.)

Stage of Financing and Funding (Maximum word count: 500):

CDI's goal of seeding technology breakthroughs requires that funding be allocated to maximize its potential impact. CDI awards shall not duplicate efforts supported by other funding sources.

If the applicant is a start-up company please:

- a) Provide current stage of fundraising (Pre-seed, Seed, Series A, Series B, etc.) and total amount of funding raised to date, source of funding, which funding is dilutive, and specific activities or project costs supported by each funding source.

If the applicant is a non-incorporated research team please:

- a) Provide total amount of funding raised to date, source of funding, and specific activities or project costs supported by each funding source.)

All applicants must indicate whether Columbia University or any other entities have equity entitlement or intellectual property rights related to the project.

Scope of Work and Gantt Chart of Activities (Maximum word count: 1,500): *(Provide a detailed scope of work for the project. The scope of work should include a timeline of activities and proposed project milestones and deliverables associated with each activity. All project activities must correspond with at least one deliverable and one milestone. Specify a timeline for all major activities in Gantt chart format. Applicants MUST use the attached Scope of Work and Gantt chart template in Appendix D. The Scope of Work—will be subject to negotiation if proposal is recommended for award selection and contracting.*

Please note that the scope of work is a separate document and has a separate word limit of 1500 words)

Detailed Budget . *(Applicants must use the budget template provided. Please note that CDI requires the indirect costs to be capped at 10% for all proposals.)*

Budget Justification. *(Applicants must provide a clear budget narrative that identifies and justifies each budget line item. Applicants must use the budget narrative template provided in Appendix E. Please note that CDI requires the indirect costs to be capped at 10% for all proposals.)*

Project Title:	(A non-confidential project name)
Project Lead Contact Information:	(Name, Email, Phone Number, Address)
Project Lead CV/Resume:	(2-page CV / Resume)
Lead Institution/ Startup Company Details:	(Name, Address)
Secondary Institution/ Startup Company Details:	(Name, Address)
Primary Project Location:	(Address)
Co-Lead Contact Information:	(Name, Email, Phone Number, Address)
Co-Lead CV/Resume:	(2-page CV / Resume)
Additional Team Member Information:	(First Name, Last Name, Title, Consolidated resume of additional team members)
Company/Project Website (if applicable):	(website url)

CDI will review applications for eligibility and an Evaluation Committee will score applications based on: team qualification, responsiveness to the objectives and requirements of the RFP, appropriateness of proposed activities, potential market impact, likelihood of market impacts, likelihood of translational impacts, potential environmental impacts, and relevancy to New York State. The review process will safeguard against any conflicts of interest on the Evaluation Committee.

Based on outcomes of the review process, selected candidates will be invited for Contracting. The first phase of Contracting is a SOW review with applicants. The review will include the following discussion items:

1. Review of activities and deliverables to ensure they conform to CDI parameters such that, all work is specific, measurable, attainable, relevant to stated objectives and time-bound.
2. Setting and reviewing milestones to ensure these conform with the SOWs, CDI performance management goalposts and funding tranches; determining specific Go/No-Go decision points.
3. Collaborating with the CDI project team to establish the initial schedule of the project.

Once the SOW for the applicant is finalized and agreed upon, the team will move to formal contract negotiation. Only when the contract is executed, the applicants become official awardees of the program.

Successful applicants should also be mindful that their status as an awardee is not final until the contracting process is complete. Applicants are strictly prohibited from disclosing any information to external parties until the conclusion of the grant selection and contracting process and CDI have made a public announcement of awards. Once contracting is complete, successful applicants will need to coordinate with CDI to ensure no announcements are made until CDI has officially announced awards after contracting. At that time, if they wish to contact the press regarding the award, they must collaborate with CDI's communications team to prepare any press release and/or plan for any announcement concerning the work.

Once the selection has been made, there is no process for appeals against the outcomes. Proposals that aren't selected may receive a summary with performance and scoring feedback from the evaluation committee, but there will be no debrief meeting to non-advancing applicants.

If you have any questions prior to applying or any questions related to using the Submittable platform, please reach out to <https://labtomarket.columbia.edu/cdi>.

Appendix A: CDI Topic Areas (TAs)

Table 1 outlines the TAs CDI will fund.

Table 1: CDI Program Technology Scope Topic Areas

Topic Area	Area Scope
TA1: CO2 Capture Technology	Research and commercialization efforts in this topic area aim to improve the efficiency, economics and overall value of carbon capture for key end-uses, such as enabling key New York State industries to decarbonize using feedstocks from current waste streams (e.g., waste-to-energy (WTE), biomass to energy, and cement plants). <i>Point source CO2 capture technologies targeting fossil fuel burning power plants and direct ocean capture, however, are excluded.</i> TA 1 efforts may fall under any of the following subtopics: • Direct air capture (DAC) ○ Integration of DAC and CO2 conversion ○ Minimizing energy required, systems with low pressure drop ○ Materials with long-term stability, tolerance to harsh environments • Point Source CO2 capture. ○ Effects of varied CO2 concentration and impurities on CO2 capture materials and systems ○ Integration of CO2 capture with resource recovery and CO2 utilization, to minimize need for storage and transportation ○ Integration of CO2 capture with biomass, waste-to-energy, renewable fuel based power, or industrial systems ○ Fuel cells with integrated carbon capture ○ Approaches to enable cleaner operation (low to zero on-site emissions) and economics for biomass gasification/pyrolysis/thermochemical conversion to produce heat, electric power or fuel with potential for net negative emissions through use of sequestered biochar/solid carbon • Cross-cutting solutions to enable carbon capture (direct air and point source) and utilization ○ The innovative use of renewable energy for sorbent regeneration (e.g., targeted heating using microwave, RF heating, etc.), solutions require less heat and overall resource use ○ Novel reactor design ○ Co-location of carbon capture with existing waste heat sources, e.g. data centers or industrial facilities ○ New use cases for proven algorithms and AI-tools to streamline co-siting, design, integration and optimization of carbon capture systems with renewables, industrial processes, etc.

	○ Ability to operate dynamically in response to grid conditions with high levels of renewables (such as wind and solar), or other machinery or processes occurring at the sited location
TA2: CO2-to-Building Materials	Construction materials, particularly for buildings and infrastructure, represent an important market for CO2 utilization and reduction, since the built environment can store large amounts of carbon at climate relevant scales. This TA will investigate the conversion of different feedstocks (e.g., WTE ash and construction wastes, etc. relevant to New York State) to building materials with reduced carbon intensity and improved performance to drive a scalable and sustainable construction industry in New York State. TA 2 efforts may fall under any of the following subtopics: ● Carbon mineralization of waste. Materials such as WTE plant ash, waste concrete, mine tailings, etc. to produce solid carbonates and other solid by-products as sustainable building materials with lower carbon intensity ● CO2 curing of concretes. Efforts to reduce the overall energy requirement to incorporate CO2 into building materials ● Low carbon replacement materials. Carbon sink materials to replace existing construction materials, particularly to substitute for products with high embodied carbon. This includes novel uses of bio-based feedstocks CO2 construction (e.g., wood, bio-composites, etc.)
TA3: CO2-to-Chemicals/Fuels and Dual-Functional Materials	As renewable energy becomes more prevalent, chemical industries that can harness renewable energy (particularly intermittently when excess energy on the grid may be curtailed) and convert CO2 rather than fossil carbon to produce chemicals, fuels, and materials. CO2 conversion technologies require focused and sustained R&D in areas such as catalysis, novel materials, and separations as well as their effective integration. TA 3 efforts may fall under any of the following subtopics: ● Electrochemical conversion of CO2 ○ Catalyst development ○ Novel electrolyte design for combined CO2 capture and conversion ○ Effects of varied CO2 concentration and impurities ○ Integration of electrochemical CO2 conversion with downstream bioconversion reactor ○ Dynamic operation that can ramp processes up and down to respond to needs of the electric grid as an additional value stream ● Dual-functional materials.

	○ Materials that host both CO₂ capture and conversion via tandem reactions (e.g., thermochemical, electrochemical, carbon mineralization reactions)
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Appendix B: Technology Readiness Levels

Figure 1: Technology Readiness Levels (TRLs)



Appendix C: Definitions

- **Carbontech:** Carbontech represents a diverse set of technologies that capture and/or convert carbon dioxide into valued products and services. Carbontech excludes any products or services that increase the emission of greenhouse gases or other environmental pollutants through operation.
- **Demonstrated Benefit to New York State:** Examples of activities that represent a ‘Demonstrated Benefit to New York State’ include:
 - Having some portion of an organization’s workforce (beyond at least one employee), such as research and development, manufacturing, and/or sales, based in New York State; and/or
 - Benefiting supply chain partners, vendors, investors, and/or service providers in New York State; and/or
 - Having an addressable market of current or future customers within New York State.
- **Direct Expenses:** Expenses that are directly related to delivering the Services Requested. These costs can be identified specifically with a particular service/activity/task or can be directly assigned to a particular service/activity/task relatively easily and with a high degree of accuracy.
- **Indirect Expenses:** Expenses that are indirectly related to delivering the Services Requested. These costs include administrative costs, overhead, other expenses that are not Direct Expenses and/or are costs incurred for a common or joint purpose benefitting more than one service/activity/task and not readily assignable to a specific service/activity/task.

Appendix D: Scope of Work and Gantt Chart Template

SCOPE OF WORK TEMPLATE

Provide a detailed scope of work for the project. The scope of work should include a timeline of activities and proposed project milestones and deliverables associated with each activity. All project activities must correspond with at least one deliverable and one milestone. Milestones and deliverables will be subject to negotiation after award selection.

Project Title

To ensure consistency across all CDI projects, we ask that titles be reframed along the following guidelines:

- 1. Begin with an infinitive*
- 2. Describe the overarching project and goal(s)*
- 3. Use specific terminology where possible, and*
- 4. Be clear and concise with a 20-word limit*

Project PI, Project Co-PI, Project Contact

Please include contact information for PI, co-PI (if applicable), and Project Contact (if different than PI). For each contact include:

Name

Title

Affiliation

Email

Phone Number

DEFINITIONS

(Define any acronyms or uncommon words/phrases/technical terms to be used in the SOW)

The Applicant is defined as:

Company Name

Contact Name

Street Address

City, State Zip code

Email/Phone/Fax

The Project Site(s) (if applicable) is/are defined as:

Site Name

Site Street Address

City, State Zip code

Activity 1-Title

Provide a description of the activity, then break the activity into discrete tasks to be accomplished. It is acceptable for an activity to map to a single task, if appropriate. The task list, however, should be a comprehensive list of key tasks in that activity that clearly lead to producing the stated deliverable(s) and achieving the associated milestone(s). In the budget template, budgets should be broken down by Activity.

The activities and tasks should:

- *Be worded so it is clear what the applicant would be required to do.*
- *Avoid using phrases like 'etc,' or 'including, but not limited to,' these phrases are ambiguous and hard to enforce.*
- *Tasks should be linear, so later tasks build on earlier tasks, and earlier tasks inform work being completed later on, as much as possible. However, it is acceptable for multiple tasks be performed simultaneously.*
- *When referring to previous or subsequent activities, reference the activity number.*

Activity 1 - Proposed Deliverable(s) – *Deliverables should be directly tied to the work completed in the activity. Include all deliverables associated with Activity. Each activity must include at least 1 deliverable to CDI.*

- *Deliverables should be a tangible item, for example, a report, a presentation, a dataset, or any other documentation that can be delivered and stored by CDI electronically. Deliverables should not include prototypes or*
- *Include expected delivery time with respect to the project start date for each deliverable, for example "Month 4" rather than "June 2, 2024".*

Activity 1 - Proposed Milestone(s): *Milestones are key achievements throughout the activity that indicate significant progress towards activity completion.*

- *Include expected completion time for each milestone with respect to the project start date.*
- *Project milestones should be directly associated with the described activity. All activities should correspond with at least one project milestone*

Activity 1 Schedule- *The activity and each task under the activity should include a duration in days. This should be noted here and included in the attached project Gannt chart.*

(Repeat identification and description of activities, tasks and deliverables as often as needed under this proposed project.)

Gantt Chart Template

(Note: This template is available as a Word document in the Submittable portal. Applicants may copy this to a spreadsheet format if needed.)

ACTIVITY/TASK NUMBER	ACTIVITY/ SUBTASK NAME	START	END	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
[ACTIVITY 1]		Month 1	Month 3						
[TASK 1.1]		Month 1	Month 2						
[ACTIVITY 2]		Month 4	Month 6						
[TASK 2.1]		Month 4	Month 5						

Appendix E: Budget Narrative and Justification Template

Total Project Budget

Describe the total budget for the project, including a breakdown of how the budget is proportionately allocated to the following categories:

- 1. Salary and fringe benefits*
- 2. Direct materials & supplies*
- 3. Subcontracts/ consulting/ collaborators/ core facility fees (cannot exceed 25% of total budget requested)*
- 4. Other*
- 5. Indirect Costs (cannot exceed 10% of the sum of other budget categories)*

Activity 1

Describe the budget allocated for activity 1, including a breakdown of how the activity 1 budget is proportionately allocated to the above referenced categories. A justification should be given to the budget for each cost category, e.g. the responsibilities of each staff member within the activity, a high-level description of the materials and supplies and their estimated costs to be purchased for the benefit of the activity, what work will be accomplished by subcontractors/ consultants/ collaborators, and what facility fees will be used for.

(Repeat each budget narrative and justification for each activity for the proposed project.)